C61.30:V81

Virginia Exports

PENNSYLVANIA STATE UNIVERSITY
OCT 23 1984
DOCUMENTS COLLECTION

STATE EXPORT SERIES

U.S. DEPARTMENT OF COMMERCE
International Trade Administration
Washington, D.C. 20230
August 1984

An ITA
Publication

EXPORTS...

. . . their importance to the United States economy

Exports play an important role in our economy and in the increasingly interdependent world economy. The United States is the world's largest exporter— currently selling $200 billion of U.S. goods abroad— and is the world's largest economy. With 5 percent of the world's population, our country produces 24 percent of the world's industrial goods.

Exporting provides a broader marketing base for U.S. firms and is considerably more important than many Americans realize. Exports currently account for 5 million jobs in the United States. On average, 25,000 jobs are generated per $1 billion of U.S. merchandise exports.

Many jobs depend on exports

Employment generated by exports is much greater than the number actually employed in producing the final products shipped abroad. Exports create a large demand for employment that spreads throughout our economy. This includes all the jobs needed to produce goods and services supplied to export producers, the jobs needed by the export producers to produce exports, and the jobs needed to move products to our ports or borders for transport to other countries.

Most of the export-related jobs are in manufacturing and services. According to the latest estimates, 49 percent of the jobs are in manufacturing, 37 percent in services, and 14 percent in production of nonmanufactured goods. The importance of export employment varies among the industries. About one out of every eight Americans currently employed in manufacturing is dependent on exports of manufactured goods. About one out of every six jobs producing nonmanufactured goods and one out of 24 jobs in services are export-related.

Exports affect production and employment in all industries, not just in a few major export industries. For example, while the primary metals industries directly export about $6 billion of their products annually, an additional $21 billion of steel and other metals are exported in the form of American-made computers, aircraft, tractors, and other manufactured goods.

Exports are of great importance to America's farmers as well. They account for $1 of every $4 of farm sales. Likewise, many jobs in the coal mining and mineral industries, as well as a considerable number in the fishing industry, are dependent on overseas sales. Exports also support employment in the trucking, rail transport, insurance, and other service industries.

Exports essential

But the basic importance of exports is that they are the principal means by which America pays for its purchases from foreign countries. The United States imports proportionately far less than other major countries, but imports have become increasingly important to the American standard of living— and they have to be paid for. The other major industrial nations generally cover the cost of the goods they import by their exports. Merchandise exports and imports each account for an average of about 20 percent of the gross national product in that group of countries. American exports, however, were only 5.9 percent of GNP in 1983, while the ratio of imports to GNP stood at 7.8 percent. This gap between exports and imports is the trade deficit, which amounted to $57.6 billion in 1983.

The strength of our exports means a great deal to America. Exports are important to all the 50 states, and each state plays a significant role in meeting the need to export more. This report helps explain that role and shows the significance of exports in relation to employment and production.

CONTENTS

Inside front cover	Importance of Exports to U.S. Economy
1	Virginia's Export Highlights
2	Explanatory Notes
3	Table 1 - Virginia's Manufactured Exports, Production, and Employment, 1981
4	Table 2 - Growth in Virginia's Manufactured Exports
5	Table 3 - U.S. Manufactured Exports by State
6, 7	Map - U.S. Manufactured Exports by State
8	Table 4 - Virginia's Agricultural Exports
9	Table 5 - U.S. Agricultural Exports by State
10	Table 6 - Virginia's Manufactured Production, Export-Related Manufactures and Employment, 1981
11	Table 7 - Growth in Virginia's Export-Related Manufactures
12	Table 8 - Export-Related Manufactures and Employment by State
Inside back cover	Chart - Exports of U.S. Manufacturing Industries Related to Domestic Production

Virginia Export Highlights

Virginia's exports of manufactured goods totaled $3.3 billion in 1981, 113 percent above the level in 1977. They rose more than twice as fast as production.

An estimated 27,400 jobs in Virginia were directly related to producing manufactured exports in 1981. About 18,600 additional jobs were required to produce materials and parts for incorporation in products exported from the 50 states. Thus, 46,000 jobs in Virginia were dependent on exports of manufactured goods—about one of every nine manufacturing jobs in the state.

Exports of bituminous coal, valued at $494 million in 1981, were one and a third times the 1977 value.

Manufactured exports doubled

Virginia's exports of manufactures totaled $3.3 billion in 1981, an increase of 113 percent since 1977. The state ranked 16th nationally in sales of these products to foreign countries. Its exports accounted for 2 percent of the U.S. total. Manufacturing shipments from Virginia firms rose by 50 percent, less than half the rate of expansion in exports.

Chemicals and tobacco products were Virginia's major exports. Substantial amounts of electric equipment, manufactured food, and nonelectric machinery also were shipped abroad. Virginia ranked second nationally as an exporter of tobacco manufactures, fourth in textile mill products, fifth in furniture/fixtures, and sixth in chemicals.

Chemicals topped Virginia's list of export manufactures. Exports more than doubled their 1977 value to reach $982 million in 1981. Foreign sales in 1981 were 21.6 percent of output compared with 14.9 percent 4 years earlier. Export growth in this period accounted for about one-third of this industry's increased production. These foreign sales generated 7,000 export jobs.

Tobacco manufactures exports valued at $846 million accounted for 25 percent of the state's production. Exports were 46 percent of the production growth from 1977 to 1981. Virginia accounted for 39 percent of the nation's manufactured tobacco exports in 1981. The 4,000 export jobs were one-fifth of the industry's total employment in the state.

The Census Bureau has estimated that the full impact of U.S. exports on Virginia's manufacturing activity was 14.3 percent rather than the 9.3 percent attributable to direct exports as shown in table 3. Estimates including supporting shipments of materials and parts for incorporation in products exported from 50 states are shown in tables 6 to 8. Thus, of the expanded manufacturing output generated between 1977 and 1981, 23 percent—or $1 out of every $4—was due to export-related shipments.

Tobacco leading export crop

Virginia's share of U.S. agricultural exports in FY 1982, including some manufactures of farm origin, totaled an estimated $384 million, up 71 percent from the FY 1977 level. Unmanufactured tobacco valued at $132 million continued to be the leading crop sold abroad as it had been all through the 1960's and early 1970's. Foreign sales in 1982 were 48 percent above those in FY 1977. Other commodities of substantial value were soybeans, wheat and flour, and feed grains.

The sharp growth in exports of agricultural products from FY 1977 to FY 1982 accounted for 26 percent of the rise in farm sales and added substantially to the income of Virginia farmers. In this period, the export contribution to each dollar of the state's farm sales increased from 22 to 24 cents.

Exporter of fish

Virginia's fishing industry exported $13.8 million worth of fishery products in 1981. Over half of this total consisted of fish in fresh and frozen form. The

(continued on back cover)

U.S. Depository Copy

Explanatory Notes

State export statistics presented in this report are estimates, in contrast to national export statistics, which are compiled from export documents prepared at the time goods leave the country. This note considers the reasons for, and consequences of, that difference.

Export estimates for each state are needed in order to measure the relative impact throughout our nation of changes in goods sold abroad. National export data are compiled each month in detail by types of goods sold and summarized in large commodity aggregates and overall totals—but in order to measure exports by each state of origin, which is not identified in shippers' export documents, special studies are necessary.

This report—one in a series of reports for each state—brings together state export estimates from studies by various U.S. Government agencies on manufactured goods, agricultural products, fishery products, and selected minerals. Overall totals for all goods exported from each state are not shown since these studies differ in methodology, frequency, export valuation, and U.S. geographic coverage, and the manufactures and agricultural studies somewhat overlap the products covered.

Manufactured Exports in this report relate to manufactures as defined in the Standard Industrial Classification (SIC) and include manufactured food, mineral fuel products, fats, oils, firearms, and ammunition not typically part of the Standard International Trade Classification (SITC) definition of manufactures. For the United States as a whole, exports of these additional products totaled $28.5 billion in 1981. Exports, normally valued at the port of exportation, are adjusted to f.o.b. plant values to make accurate comparisons with production (shipments) data.

The state estimates for manufactured goods are based on surveys of manufacturers conducted by the Industry Division of the Bureau of the Census. These studies are for selected years; cover the continental United States, Alaska, and Hawaii; and present data classified by the 20 major SIC industry groups (2-digit). Tables 1 to 3 show the value of state exports and state production, and the number of workers employed in manufacturing plants producing the finished goods for direct shipment to foreign destinations.

State economies also benefit from manufactured goods produced for ultimate export through other states, and from jobs related to manufactured exports which are generated in nonmanufacturing industries. In the table below, percentages show the full impact of export-related manufactures on state employment. Tables 6 to 8 show the percent of production and the value of state export-related manufactures—direct exports plus indirect exports or the value of materials and parts incorporated in products exported from elsewhere in the nation—and the number of state export-related workers employed in manufacturing plants producing these goods. Table 8 also shows the total number of workers related to manufactured exports—in manufacturing plus the number in nonmanufacturing industries supporting manufactured exports by supplying materials or services such as forwarding, warehousing, transport, and other foreign trade-related services.

Agricultural Exports relate to food products other than those from marine sources, unmanufactured tobacco, and other agricultural products simply processed such as fibers, raw hides and skins, fats and oils, wine and beverages other than distilled types.

The state estimates for agricultural exports are from studies prepared by the U.S. Department of Agriculture. Exports reflect shares in national exports according to each state's production and sales data. Export values were obtained by multiplying each state's share of farm production by commodity times the total export value for each of the respective commodities. These annual studies are for fiscal years ending September 30 and for all states except Alaska, and show data classified by 18 commodity groups. Tables 4 and 5 show the value of state exports and the percent of farm sales.

Other Exports—Fishery products, various minerals, and fuel export estimates shown in the Highlights on page 1 for selected states are from studies prepared by the National Oceanic and Atmospheric Administration (NOAA), the U.S. Department of Interior, and the U.S. Department of Energy, respectively. Exports generally reflect shares in national exports according to state production.

Annual Exports and Employment Related to Manufactured Exports

	Manufactured exports	Manufacturing employment		Total employment, including nonmanufacturing employment	
	(million dollars)	(thousands)	Percent of manufacturing employment	(thousands)	Percent of civilian employment
Virginia *					
1976	1,545	35.6	9.5	58.3	2.8
1977	1,573	33.5	8.5	56.1	2.6
1980	3,208	48.5	11.6	89.9	3.7
1981	3,344	46.0	11.1	88.3	3.6
United States					
1976	83,098	2,125.4	11.3	3,452.1	4.0
1977	85,796	1,990.2	10.2	3,258.2	3.6
1980	151,216	2,639.3	12.8	4,808.3	4.8
1981	164,283	2,603.8	12.8	4,794.0	4.7

* Virginia's export-related manufactures were as follows in million dollars: 1976, 2,370; 1977, 2,480; 1980, 4,876; and 1981, 5,163. About 23 percent of the increase in Virginia's manufacturing production from 1977 to 1981 was generated by growth in export-related manufactures.

TABLE 1

Virginia Manufactured Exports, Production, and Employment, 1981

- Virginia's leading manufactured exports were chemicals, tobacco products, and electric equipment.
- These three industries accounted for 63 percent of Virginia's total exports of manufactures.

Industry group	Production (million dollars)	Estimated exports (million dollars)	Exports as percent of production	Estimated employment related to exports (thousands)	Employment related to exports as percent of total employment
Total[1]	35,910	**3,344**	9.3	27.4	6.7
Chemicals and allied products	4,556	**982**	21.6	7.0	21.7
Tobacco manufactures	3,380	**846**	25.0	4.0	21.9
Electric and electronic equipment	2,745	**286**	10.4	3.3	10.0
Food and kindred products	5,146	**247**	4.8	1.1	3.0
Machinery, except electric	1,436	**229**	15.9	2.7	14.2
Textile mill products	2,822	**190**	6.7	3.7	8.7
Transportation equipment	2,606	**128**	4.9	0.7	1.9
Fabricated metal products	2,041	**110**	5.4	1.0	5.5
Paper and allied products	1,962	**88**	4.5	0.5	3.6
Rubber and plastic products	1,362	**72**	5.3	0.5	4.2
Instruments and related products	241	**40**	16.6	0.7	13.2
Primary metal industries	1,115	**25**	2.2	0.1	1.0
Furniture and fixtures	1,008	**21**	2.1	0.5	2.0
Lumber and wood products	1,293	**21**	1.6	0.3	1.3
Apparel and textile products	903	**13**	1.5	0.1	0.3
Printing and publishing	1,479	**8**	0.5	0.1	0.4
Misc. manufacturing industries	148	**8**	5.2	(2)	--
Leather and leather products	137	**2**	1.5	(2)	--
Petroleum and coal products	(1)	**(1)**	--	(1)	--
Stone, clay, and glass products	(1)	**(1)**	--	(1)	--

[1] Total includes estimated exports, production values, and employment numbers which are withheld for certain industry groups to avoid disclosure of individual companies' data. [2] Less than 50 employees. -- Not applicable.

TABLE 2

Virginia Growth in Manufactured Exports

- In 1981, Virginia's manufactured exports totaled $3.3 billion, more than double the 1977 value.
- Over half the increase stemmed from growth in chemicals and tobacco products exports.

Industry group	Export value (million dollars)					Percent increase from 1977 to 1981		Export increase as percent of production increase 1977-81
	1960	1969	1972	1977	1981	Exports	Production	
Total	368	581	716	1,573	**3,344**	113	50	15
Chemicals and allied products	69	143	115	412	**982**	139	65	32
Tobacco manufactures	178	194	326	402	**846**	110	40	46
Electric and electronic equipment	8	38	88	156	**286**	83	82	10
Food and kindred products	30	48	(1)	135	**247**	83	43	7
Machinery, except electric	7	25	35	107	**229**	115	57	23
Textile mill products	22	36	(1)	110	**190**	73	41	10
Transportation equipment	2	25–50	(1)	37	**128**	251	17	24
Fabricated metal products	(1)	6	5	34	**110**	226	89	8
Paper and allied products	21	16	(1)	42	**88**	111	69	6
Rubber and plastic products	2	6	10	43	**72**	68	65	5
Instruments and related products	(1)	1–5	(1)	13	**40**	215	67	28
Primary metal industries	1	5–10	4	9	**25**	171	39	5
Furniture and fixtures	(1)	1–5	(1)	11	**21**	88	27	5
Lumber and wood products	4	10–25	(1)	17	**21**	23	20	2
Apparel and textile products	3	1–5	(1)	11	**13**	16	15	2
Printing and publishing	(1)	1–5	(1)	3	**8**	141	86	1
Misc. manufacturing industries	5	5–10	(1)	6	**8**	26	1	100+
Leather and leather products	(1)	0–1	(1)	2	**2**	11	44	(2)
Stone, clay, and glass products	(1)	4	(1)	15[3]	**(1)**	--	--	--
Petroleum and coal products	(1)	(1)	(1)	(3 4)	**(1)**	--	--	--

[1] Not available. [2] Less than one half of one percent. [3] 1976. [4] Less than $500,000. -- Not applicable.
Note: Totals for all years include values for industry groups which are not shown separately.

TABLE 3

United States Manufactured Exports by State

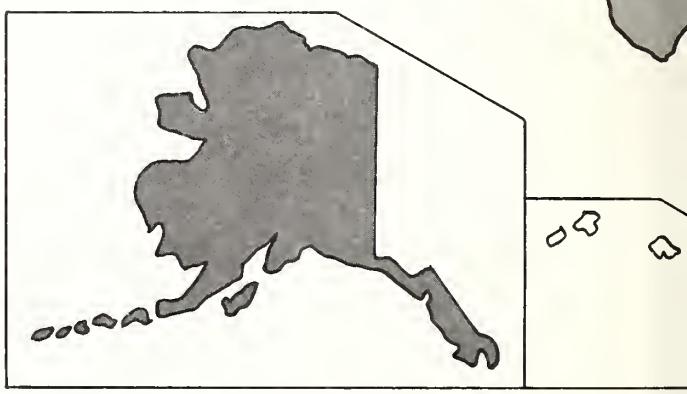
- California, Texas, Illinois, Ohio, and Michigan continued to be the top five exporters of manufactures in 1981.
- Manufactured exports totaled $2 billion or more for almost half of the 50 states.

State	Rank as exporter in 1981	Export value (million dollars)				Percent increase from 1977 to 1981	Estimated exports as percent of state production	Employment related to exports as percent of state employment
		1969	1972	1977	1981			
U.S., total	--	**29,210**	**36,608**	**85,796**	**164,283**	**91**	**8.1**	**7.3**
California	1	2,721	2,809	9,116	18,775	106	9.8	9.7
Texas	2	1,468	1,982	5,386	11,687	117	6.5	7.2
Illinois	3	2,343	2,902	6,313	10,369	64	8.2	6.9
Ohio	4	2,338	3,054	6,028	10,353	72	8.5	7.9
Michigan	5	2,613	3,522	6,937	10,275	48	9.8	7.6
New York	6	2,296	2,795	5,833	10,155	74	8.5	6.5
Washington	7	954	1,781	2,805	9,023	222	24.5	21.9
Pennsylvania	8	1,902	2,351	4,714	8,129	72	7.1	6.9
Massachusetts	9	818	920	2,310	5,096	121	10.6	8.6
Indiana	10	998	1,404	2,942	5,008	70	7.1	7.0
North Carolina	11	739	705	2,291	4,682	104	7.5	5.0
New Jersey	12	1,114	1,328	2,881	4,469	55	6.1	5.8
Wisconsin	13	785	916	2,132	4,031	89	7.4	7.4
Louisiana	14	396	541	1,494	3,725	149	6.4	6.6
Florida	15	426	567	1,583	3,352	112	9.1	6.6
Virginia	**16**	**581**	**716**	**1,573**	**3,344**	**113**	**9.3**	**6.7**
Tennessee	17	472	679	1,501	3,285	119	8.0	5.6
Connecticut	18	659	848	1,662	3,083	85	10.2	8.2
Missouri	19	634	577	1,682	3,013	79	7.3	6.2
Minnesota	20	492	654	1,605	2,730	70	7.7	7.1
Iowa	21	412	590	1,578	2,705	71	8.1	8.2
Georgia	22	428	580	1,419	2,505	76	5.3	4.8
South Carolina	23	254	312	1,150	2,230	94	8.0	5.5
Alabama	24	318	287	895	1,936	116	6.3	5.5
Kentucky	25	345	451	1,354	1,935	43	6.4	5.1
Oregon	26	240	237	906	1,724	90	9.2	9.0
Arizona	27	157	266	680	1,639	141	13.1	15.4
Arkansas	28	204	320	626	1,604	156	8.7	6.1
Kansas	29	241	283	689	1,517	120	5.7	7.6
Oklahoma	30	158	252	639	1,515	137	6.0	7.3
Colorado	31	157	245	668	1,283	92	7.5	8.6
Maryland	32	362	314	634	1,219	92	5.7	5.3
West Virginia	33	235	295	438	1,199	174	10.0	6.1
Mississippi	34	181	236	718	1,159	61	5.9	4.6
Nebraska	35	100	134	328	945	188	6.1	6.3
Alaska	36	33-48	(1)	374	653	75	33.4	32.5
New Hampshire	37	74	103	290	637	120	8.8	8.9
Rhode Island	38	110	107	297	586	98	7.7	6.8
Maine	39	77	83	232	498	114	5.5	5.6
Idaho	40	35	27	246	460	87	9.2	6.8
Utah	41	48	127	173	449	159	4.6	5.8
Delaware	42	124	128	155	375	142	4.1	3.7
Vermont	43	52	52	183	229	25	6.3	6.0
South Dakota	44	13	(1)	95	185	96	6.3	4.5
North Dakota	45	7	14	73	156	114	6.6	7.9
Nevada	46	10-25	7	31	105	238	6.8	5.1
Hawaii	47	10-25	(1)	26	96	265	2.7	2.3
New Mexico	48	16	18	37	64	73	2.0	0.9
Montana	49	14	(1)	59	61	4	1.4	1.8
Wyoming	50	1-5	(1)	6	18	192	0.6	--

[1] U.S. total includes values withheld to avoid disclosure for individual companies or because estimate did not meet publication standards. -- Not applicable.

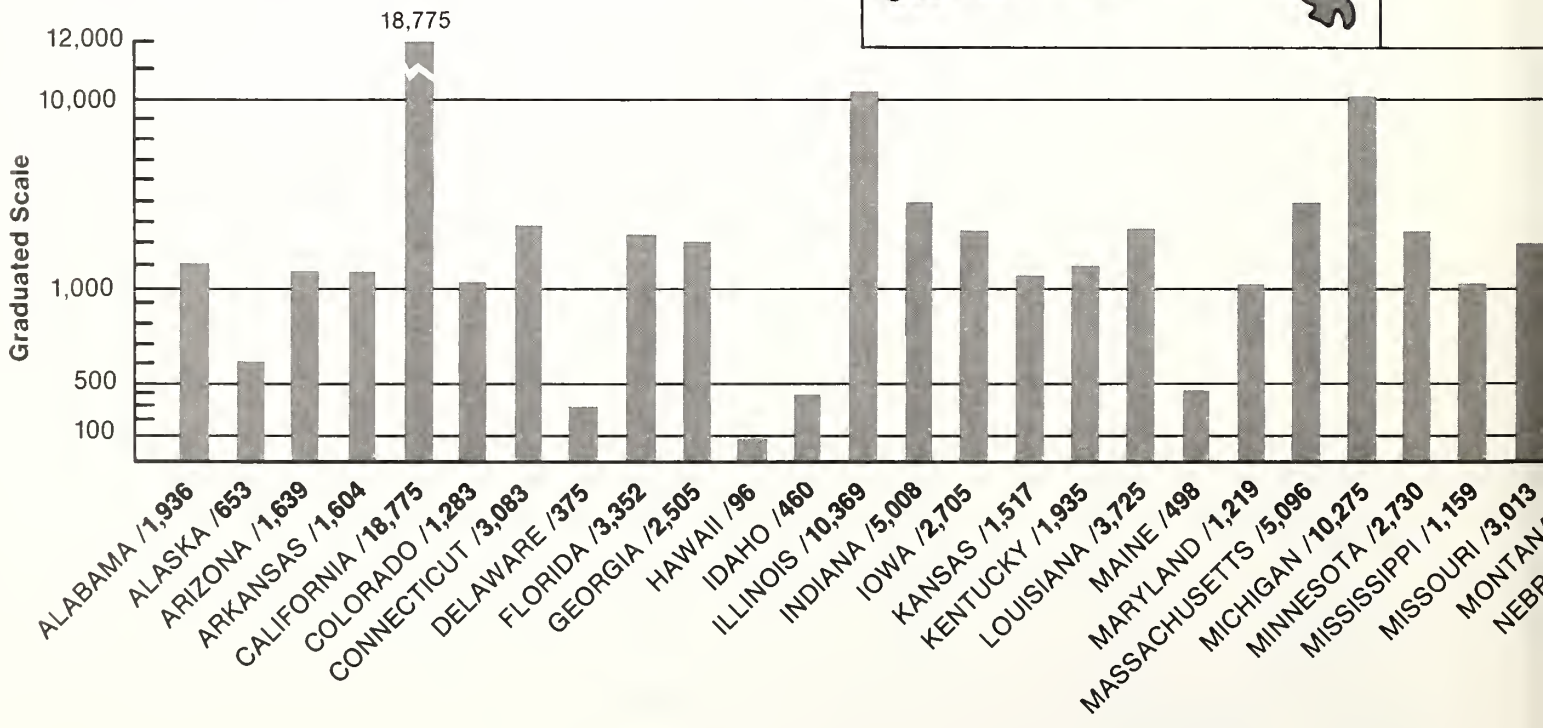
U.S. Manufactured Exports by State

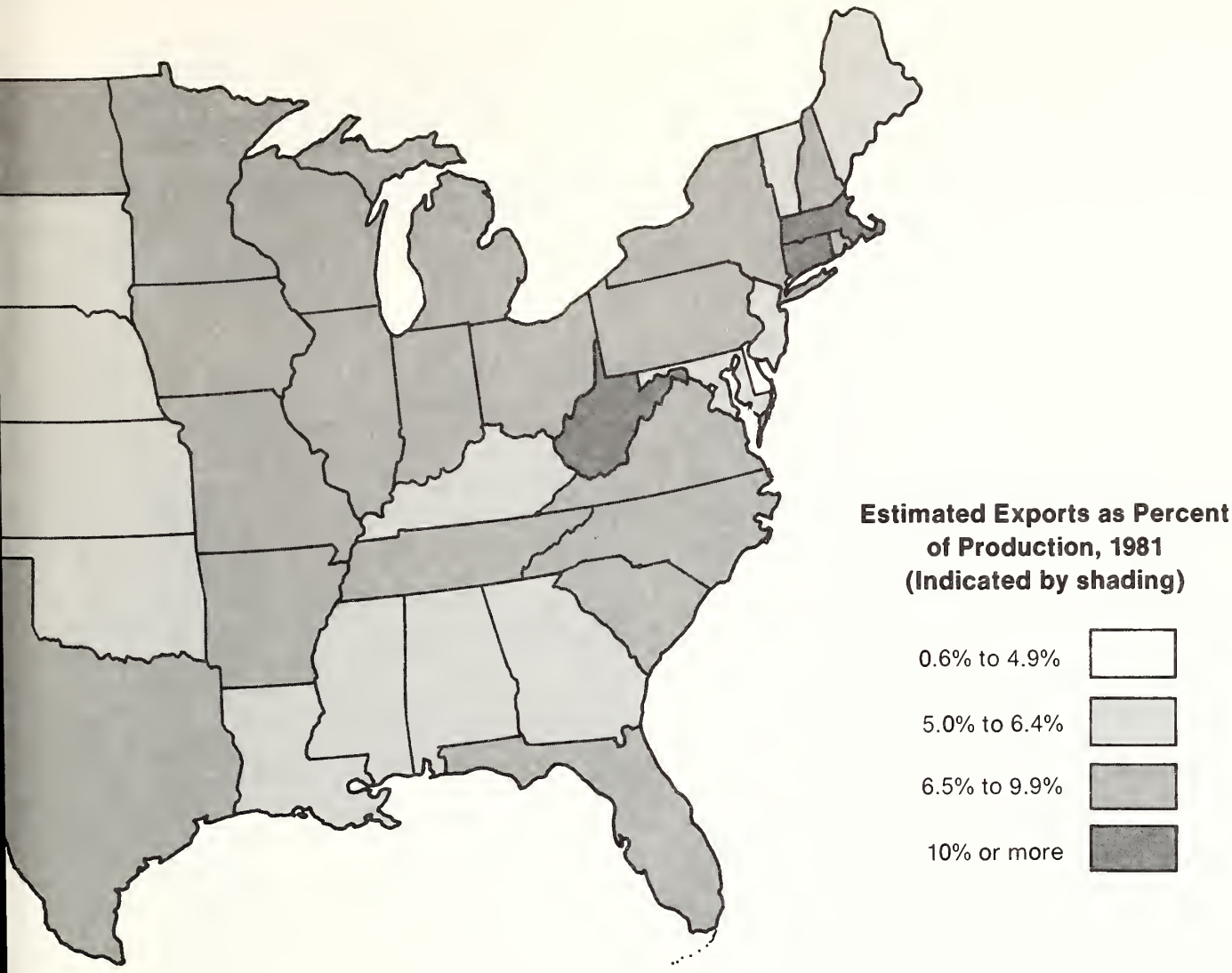
- All 50 states shared in U.S. exports of manufactures.
- Exports accounted for varying percentages of domestic production



Estimated Value of Exports of Manufactures, 1981

(in millions of dollars)




Estimated Exports as Percent
of Production, 1981
(Indicated by shading)
0.6% to 4.9%
5.0% to 6.4%
6.5% to 9.9%
10% or more

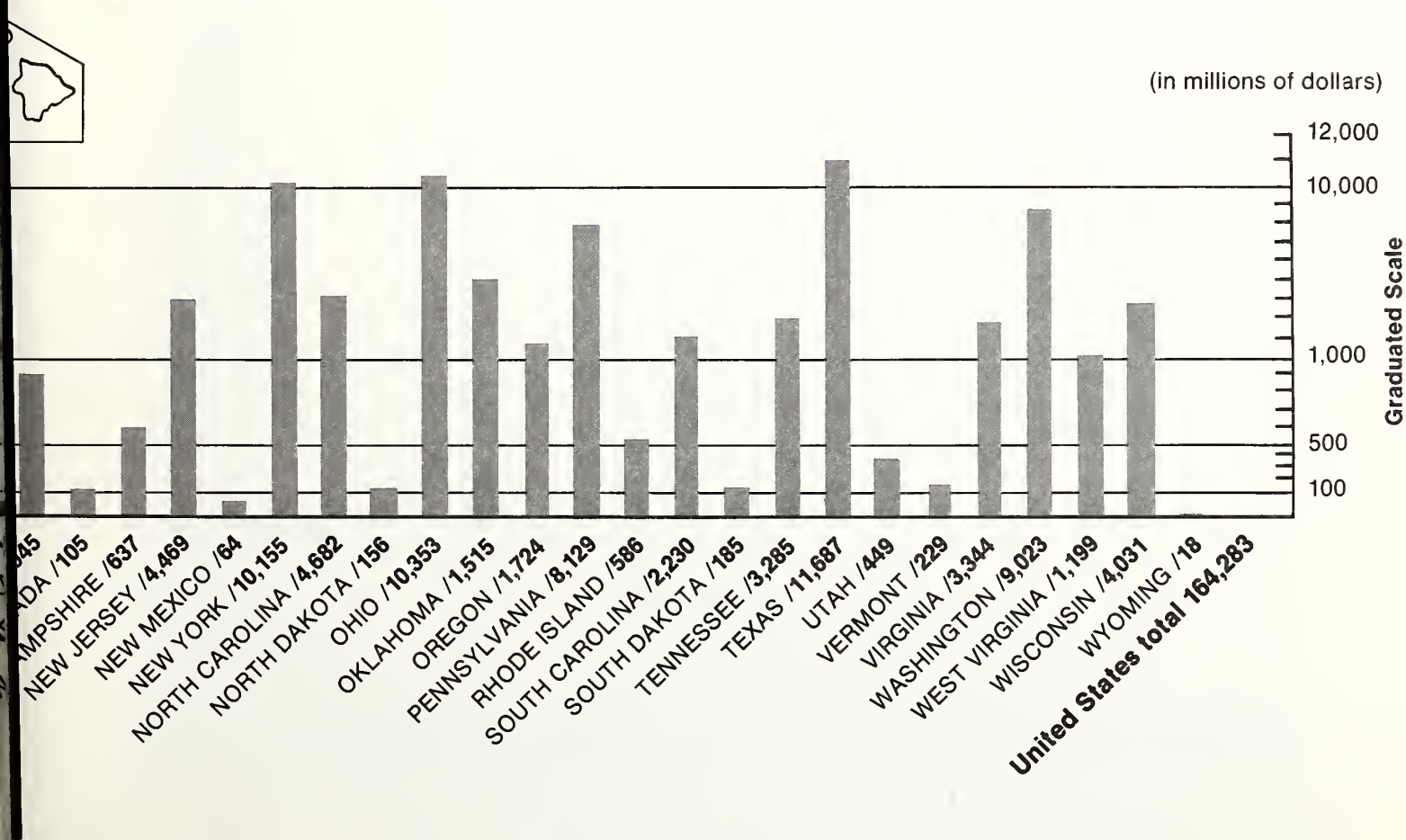

(in millions of dollars)
12,000
10,000
1,000
500
100
Graduated Scale
NEW JERSEY /4,469
NEW MEXICO /64
NEW YORK /10,155
NORTH CAROLINA /4,682
NORTH DAKOTA /156
OHIO /10,353
OKLAHOMA /1,515
OREGON /1,724
PENNSYLVANIA /8,129
RHODE ISLAND /586
SOUTH CAROLINA /2,230
SOUTH DAKOTA /185
TENNESSEE /3,285
TEXAS /11,687
UTAH /449
VERMONT /229
VIRGINIA /3,344
WASHINGTON /9,023
WEST VIRGINIA /1,199
WISCONSIN /4,031
WYOMING /18
United States total 164,283

TABLE 4

Virginia Agricultural Exports*

- In fiscal 1982, Virginia's share of U.S. agricultural exports totaled $384 million, about one and three-fourths times the 1977 value.
- Tobacco was the leading farm export from the state.

Product	Estimated exports (million dollars)				Percent increase 1977 to 1982
	FY 1968	FY 1972	FY 1977	FY 1982	
Total	80	92	225	**384**	71
Tobacco, unmanufactured	38	48	89	**132**	48
Soybeans and products	6	14	36	**71**	95
Wheat and products	6	5	11	**51**	371
Feed grains and products	6	4	25	**37**	46
Meats and products	2	2	5	**22**	315
Peanuts and products	(1)	(1)	15	**20**	39
Poultry and products	1	2	7	**16**	136
Hides and skins	1	2	5	**8**	83
Fats, oils, and greases	2	2	5	**8**	64
Fruits and preparations	4	1	1	**8**	443
Vegetables and preparations	2	1	4	**4**	-14
Dairy products	2	(1)	(1)	**1**	--
Nuts and preparations	3	(2)	1	**(2)**	-70
Cotton	(1)	(2)	(2)	**(1)**	--
Other products	7	10	20	**6**	-72

* Exports reflect shares in national exports according to each state's production.
[1] Not available. [2] Less than $500,000. -- Not applicable.

TABLE 5

United States Agricultural Exports* by State

- Exports accounted for over one fourth of total U.S. farm sales in FY 1982 and for more than 25 percent of sales from 20 of the states.
- Illinois, Iowa, California, and Texas each exported more than $2 billion of farm products.

State	Rank as exporter FY 1982	Export value (million dollars) FY 1968	FY 1972	FY 1977	FY 1982	Percent increase FY 1977 to FY 1982	Exports as percent of farm sales[1] FY 1982
U.S., total	--	**[2]6,315**	**8,050**	**24,013**	**[2]39,094**	**63**	**27.5**
Illinois	1	585	758	2,539	3,306	30	43.3
Iowa	2	392	620	2,042	3,026	48	28.9
California	3	413	592	1,774	2,854	61	20.6
Texas	4	551	456	1,761	2,569	46	25.4
Minnesota	5	226	347	918	1,883	105	29.4
Nebraska	6	230	283	988	1,808	83	26.4
Kansas	7	296	365	998	1,628	63	29.3
Indiana	8	252	384	1,319	1,559	18	36.6
Missouri	9	174	317	766	1,404	83	34.4
North Dakota	10	166	250	554	1,326	149	50.7
Arkansas	11	255	352	907	1,283	41	39.2
North Carolina	12	366	420	964	1,247	29	29.8
Ohio	13	194	262	957	1,052	10	31.6
Washington	14	152	163	414	946	129	33.0
Mississippi	15	164	230	648	787	21	35.8
Oklahoma	16	115	108	410	781	90	26.9
Michigan	17	92	107	318	753	137	28.2
Kentucky	18	69	132	473	731	55	24.7
Georgia	19	132	173	476	706	48	21.7
South Dakota	20	95	124	210	655	212	23.8
Louisiana	21	155	191	543	626	15	37.4
Colorado	22	63	98	239	612	156	19.6
Wisconsin	23	59	104	263	592	125	11.9
Tennessee	24	102	143	390	590	51	31.0
Florida	25	101	148	390	586	50	14.2
Montana	26	107	101	322	559	74	37.9
Idaho	27	66	91	262	551	110	24.6
Alabama	28	56	102	332	481	45	21.7
Oregon	29	49	65	182	423	132	24.1
South Carolina	30	107	135	312	407	30	35.6
Arizona	31	61	70	285	404	42	23.3
Virginia	**32**	**80**	**92**	**225**	**384**	**71**	**23.5**
Pennsylvania	33	65	42	137	246	79	8.3
New York	34	63	44	109	214	96	8.2
Maryland	35	35	41	136	188	39	17.9
New Mexico	36	24	28	82	121	48	13.6
Wyoming	37	8	16	38	95	154	15.8
Utah	38	14	19	55	80	45	14.7
Delaware	39	15	14	53	73	38	18.5
New Jersey	40	19	11	38	65	72	13.9
Hawaii	41	16	17	59	41	-30	8.4
Maine	42	6	5	28	28	1	6.5
Massachusetts	43	5	6	12	24	105	7.6
Nevada	44	2	4	10	22	118	10.5
West Virginia	45	6	4	11	22	97	9.5
Connecticut	46	8	12	22	15	-32	4.6
Vermont	47	2	4	3	8	138	1.9
New Hampshire	48	1	1	2	4	89	3.6
Rhode Island	49	[3]	[3]	1	1	11	3.1
Alaska	50	[4]	[4]	[5]	[4]	--	--

* Exports reflect shares in national exports according to each state's production. [1] Commercial sales plus net Commodity Credit Corporation loans and purchases under price support programs. [2] Includes exports that were not apportioned among states. [3] Less than $500,000. [4] Not available. [5] Less than $100,000. -- Not applicable.

TABLE 6

Virginia Manufactured Production, Export-Related Manufactures and Employment, 1981

- About 1 out of 9 Virginia jobs in manufacturing are due to exports.
- Four industries—chemicals, textile products, tobacco manufactures, and electric equipment—accounted for 56 percent of Virginia's export-related jobs in manufacturing.

Industry group	Production (million dollars)	Export-related manufactures (million dollars)	Export related as percent of production	Employment for export-related manufactures (thousands)	Employment for export related as percent of total employment
Total[1]	35,910	5,163	14.3	46.0	**11.1**
Chemicals and allied products	4,556	1,397	30.6	10.0	**30.9**
Tobacco manufactures	3,380	1,001	29.6	4.9	**26.7**
Electric and electronic equipment	2,745	391	14.2	4.7	**14.1**
Textile mill products	2,822	360	12.7	6.0	**14.0**
Food and kindred products	5,146	351	6.8	1.8	**4.9**
Machinery, except electric	1,436	300	20.8	3.7	**19.4**
Fabricated metal products	2,041	250	12.2	2.0	**11.0**
Paper and allied products	1,962	232	11.8	1.5	**10.9**
Primary metal industries	1,115	200	17.9	1.6	**15.9**
Transportation equipment	2,606	174	6.6	1.2	**3.2**
Rubber and plastic products	1,362	160	11.7	1.3	**11.0**
Lumber and wood products	1,293	101	7.8	1.8	**7.7**
Instruments and related products	241	46	19.0	0.8	**15.0**
Furniture and fixtures	1,008	30	3.0	0.7	**2.7**
Printing and publishing	1,479	28	1.9	0.5	**1.9**
Apparel and textile products	903	24	2.7	0.4	**1.3**
Misc. manufacturing industries	148	10	6.4	(2)	**(3)**
Stone, clay, and glass products	(1)	(1)	--	(1)	**--**
Petroleum and coal products	(1)	(1)	--	(1)	**--**

[1] Total includes estimated production and export-related values and employment numbers which are withheld for certain industry groups to avoid disclosure of individual companies' data. [2] Less than 50 employees. [3] Less than one half of one percent. -- Not applicable.

TABLE 7

Virginia Growth in Export-Related Manufactures

- The 108 percent growth in the value of export-related manufactures from 1977 to 1981 was much faster than the rate of expansion in production.
- Half the increase in tobacco manufacture production and almost half the rise in chemicals output was generated by growth in export-related manufactures.

Industry group	Export-related manufactures (million dollars)		Percent increase from 1977 to 1981		Export-related increase as percent of production increase 1977-81
	1977	1981	Export related	Production	
Total	2,480	5,163	108	50	**23**
Chemicals and allied products	595	1,397	135	65	**45**
Tobacco manufactures	494	1,001	103	40	**52**
Electric and electronic equipment	210	391	86	82	**15**
Textile mill products	207	360	74	41	**19**
Food and kindred products	183	351	92	43	**11**
Machinery, except electric	143	300	110	57	**30**
Fabricated metal products	82	250	203	89	**17**
Paper and allied products	104	232	124	69	**16**
Primary metal industries	117	200	72	39	**27**
Transportation equipment	74	174	136	17	**26**
Rubber and plastic products	87	160	83	65	**14**
Lumber and wood products	65	101	56	20	**17**
Instruments and related products	16	46	181	67	**31**
Furniture and fixtures	17	30	83	27	**7**
Printing and publishing	11	28	148	86	**2**
Apparel and textile products	20	24	24	15	**4**
Misc. manufacturing industries	8	10	22	1	**100+**
Leather and leather products	3	3	31	45	**2**
Stone, clay, and glass products	29[1]	([2])	--	--	**--**
Petroleum and coal products	([2])	([2])	--	--	**--**

[1] 1976. [2] Not available. -- Not applicable.
Note: Totals include values for industry groups which are not shown separately.

TABLE 8

United States Export-Related Manufactures and Employment by State

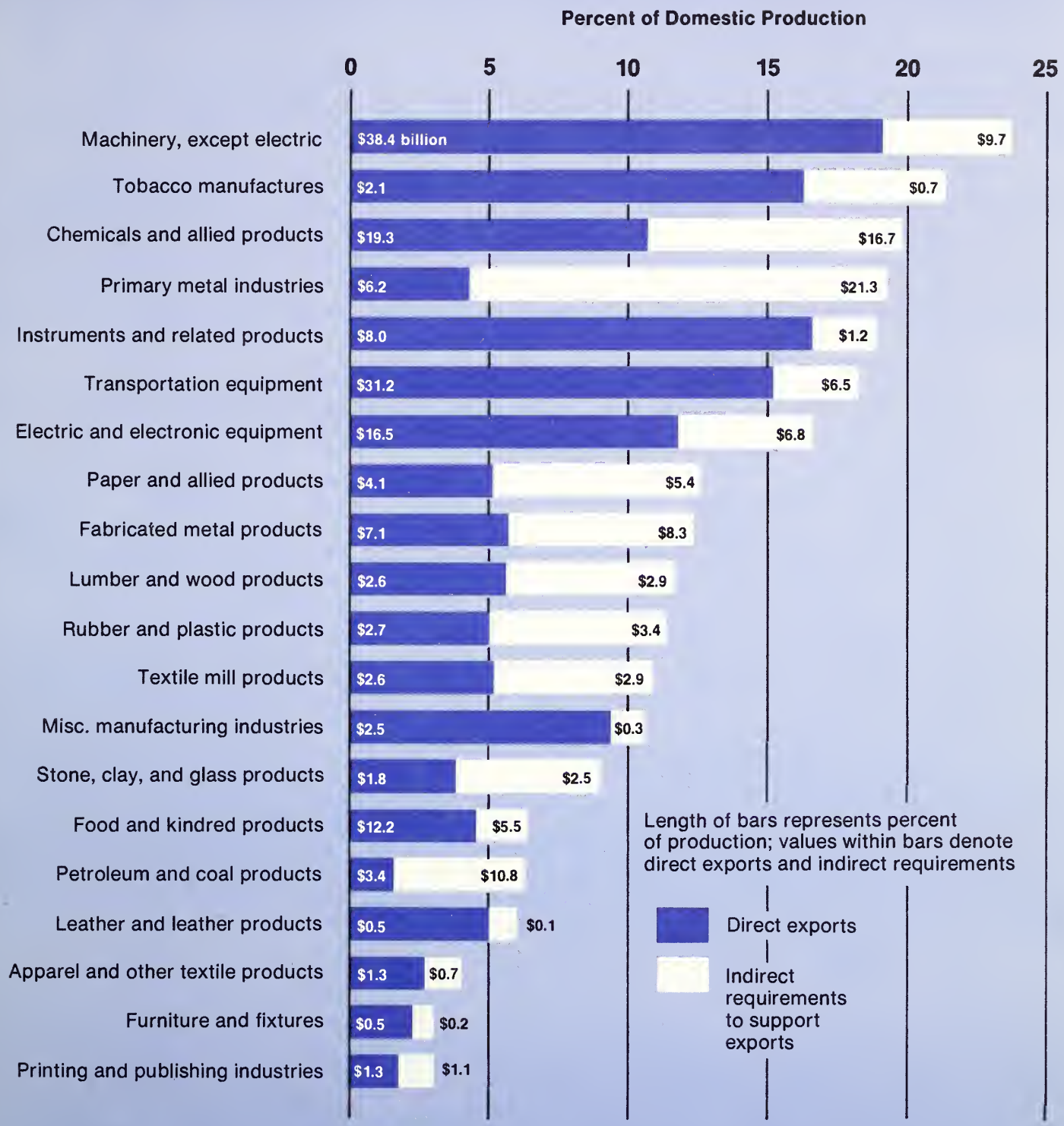
- California, New York, Texas, Pennsylvania, and Ohio led the states with the largest number of jobs related to manufactured exports.
- Employment rates were highest in Connecticut, Washington, Ohio, and Delaware for jobs in all industries related to manufactured exports.

State	Rank as export related in 1981	Export-related manufactures 1977 (million dollars)	Export-related manufactures 1981 (million dollars)	Percent increase from 1977 to 1981	Percent of state production 1981	Employment for export related as percent of manufacturing employment	Total employment related to manufactured exports (thousands)	Total employment related to manufactured exports Percent of civilian employment
U.S., total	--	**142,404**	**271,703**	**91**	**13.4**	**12.8**	**4,794.0**	**4.7**
California	1	13,319	27,399	106	14.2	14.5	526.5	4.7
Texas	2	9,196	22,651	146	12.5	12.7	285.5	4.2
Ohio	3	11,047	18,132	64	14.8	14.7	284.0	6.2
Illinois	4	10,216	17,039	67	13.4	12.9	275.4	5.4
Michigan	5	10,975	15,512	41	14.7	14.6	218.9	5.7
Pennsylvania	6	8,955	15,485	73	13.4	13.2	284.1	5.5
New York	7	8,894	15,260	72	12.7	11.4	372.0	4.9
Washington	8	3,716	10,773	190	29.2	26.3	121.9	6.5
Indiana	9	5,784	9,692	68	13.7	13.3	140.3	5.8
New Jersey	10	4,880	8,204	68	11.2	11.9	175.0	5.4
North Carolina	11	3,883	7,808	101	12.5	9.8	150.3	5.5
Massachusetts	12	3,498	7,425	112	15.4	14.2	155.1	5.6
Louisiana	13	2,734	7,415	171	12.8	11.9	63.7	3.6
Wisconsin	14	3,607	6,590	83	12.0	13.0	114.9	5.3
Tennessee	15	2,716	5,567	105	13.4	10.3	102.5	5.3
Virginia	**16**	**2,480**	**5,163**	**108**	**14.3**	**11.1**	**88.3**	**3.6**
Georgia	17	2,723	4,981	83	10.5	9.7	106.1	4.3
Florida	18	2,294	4,965	116	13.4	10.8	129.9	3.0
Connecticut	19	2,687	4,886	82	16.2	14.9	103.5	7.1
Missouri	20	2,834	4,861	72	11.7	11.1	94.7	4.3
South Carolina	21	2,117	4,194	98	15.0	11.7	76.4	5.5
Minnesota	22	2,298	4,135	80	11.6	12.4	90.9	4.5
Alabama	23	2,061	4,024	95	13.1	11.0	71.1	4.6
Iowa	24	2,228	3,940	77	11.8	12.0	60.0	4.5
Kentucky	25	2,367	3,751	58	12.3	10.6	58.7	3.9
Oregon	26	1,498	2,801	87	14.8	14.5	58.7	4.7
Oklahoma	27	1,044	2,752	164	10.8	12.4	54.5	4.0
Kansas	28	1,158	2,678	131	10.1	12.4	47.2	4.3
Arkansas	29	1,086	2,524	132	13.6	10.5	40.8	4.3
Arizona	30	1,050	2,461	134	19.7	20.5	53.7	4.4
West Virginia	31	1,108	2,361	113	19.7	14.6	30.7	4.2
Maryland	32	1,327	2,348	77	11.0	10.8	53.8	2.6
Mississippi	33	1,111	2,066	86	10.4	8.2	36.9	3.7
Colorado	34	976	1,922	97	11.1	12.7	49.4	3.3
Nebraska	35	576	1,477	156	9.5	10.0	24.4	3.3
Utah	36	416	1,050	153	10.6	10.3	20.5	3.3
Rhode Island	37	540	1,018	88	13.4	12.0	24.9	5.8
New Hampshire	38	455	994	119	13.6	14.1	24.3	5.5
Maine	39	425	924	118	10.1	9.9	20.9	4.5
Delaware	40	346	852	146	9.4	13.5	15.1	6.1
Idaho	41	381	740	94	14.7	11.7	15.4	3.9
Alaska	42	393	711	81	36.3	34.1	6.3	3.3
Vermont	43	287	451	57	12.3	11.6	10.1	4.0
Montana	44	182	327	80	7.6	7.5	7.9	2.2
South Dakota	45	130	267	105	9.1	7.9	8.1	2.6
North Dakota	46	98	242	147	10.2	11.1	7.8	2.6
New Mexico	47	109	235	116	7.2	4.6	9.5	1.7
Hawaii	48	66	232	252	6.3	4.5	6.4	1.5
Nevada	49	70	205	192	13.1	10.1	5.4	1.2
Wyoming	50	43	180	320	5.6	4.4	5.1	2.1

☆ U.S. GOVERNMENT PRINTING OFFICE: 1984 - 421-009 - 227/748

Exports of U.S. Manufacturing Industries Related to Domestic Production, 1981

Direct Exports and Indirect Requirements to Support Exports



Note: Percentages shown for each industry indicate the total relative impact of exports on the domestic economy, including direct exports and goods shipped from domestic establishments for use as inputs in manufactured products exported from other establishments. Such inputs are included in domestic production industry totals.

continued from page 1
remainder was divided between fish oils and fish meal. Virginia ranked second in U.S. exports of the latter. Shipments abroad were valued at $2.5 million, which was 13 percent of U.S. exports of the product in 1981.

Fourth largest coal exporter

Virginia ranked fourth to West Virginia, Pennsylvania, and Kentucky as a U.S. exporter of bituminous coal in 1981. Foreign sales totaled $494 million or one-eighth of the nation's coal exports.

Export-related employment grew

Virginia's $3.3 billion worth of manufactured exports provided direct employment for an estimated 27,400 workers in 1981. Those jobs constituted 6.7 percent of the total direct employment in manufacturing in the state. From 1977 to 1981 the number of workers engaged in the production of manufactures was up only 4 percent while employment directly related to exports jumped by 41 percent. Two-fifths of these workers were concentrated in the chemicals, tobacco manufactures, and textile mill products industries. These jobs accounted for between 9 and 22 percent of the work force in those industries.

In addition, an estimated 18,600 jobs were required in the state to manufacture products used by other establishments in the United States as inputs for manufactures that were ultimately exported. Thus, an estimated 46,000 jobs in Virginia were directly or indirectly dependent on exports of manufactured goods. This number was 11.1 percent of all manufacturing employment in the state.

Over one-half of the jobs dependent on manufactured exports were concentrated in the chemicals, textile mill products, tobacco manufactures, and electric equipment industries. These jobs accounted for one out of three jobs in the chemicals industry, one out of four jobs in the tobacco manufactures industry, and one out of seven jobs in the electric equipment and textile products industries.

An additional 42,300 jobs were generated in non-manufacturing industries that supply materials and services supporting manufactured exports. Viriginia's total employment related to manufactured exports amounted to 88,300 jobs.

It is estimated that Virginia's farm employment related to exports in 1982 amounted to 23,700 or about one out of every four farmers. This estimate assumes that the number of farmers dependent on exports corresponds to the ratio of exports to farm sales in the state. Depending on numerous variables, including the character of the product, mechanization, and degree of intensiveness of farming, it may somewhat understate or overstate the actual number dependent on exports.

STATE EXPORT REPORTS

This report is one of a series of 50 prepared by the Office of Trade and Industry Information /Trade Information and Analysis, International Trade Administration on exports from the individual states. Data on manufactured and agricultural exports are presented in tabular form for a series of years. In addition, recent information is included on state exports of fish, fish products, and minerals. The statistics on 1981 exports of manufactures by state were taken from *Origin of Exports of Manufactured Products, 1981 Annual Survey of Manufactures,* M81 (AS)-5, issued by the Bureau of the Census in May 1983. That publication can be ordered from the Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233, or from any U.S. Department of Commerce District Office for $2.75 per copy. Data for earlier years were taken from similar Census reports now out of print.

The information on state shares of agricultural exports was taken from various issues of *Foreign Agricultural Trade of the United States* published by the U.S. Department of Agriculture. Special compilations on exports of minerals and fuels by state were provided by the Bureau of the Mines, U.S. Department of Interior, and by the Energy Information Administration, U.S. Department of Energy, and on fish and fishery products by National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

PENN STATE UNIVERSITY LIBRARIES
A0000728572 74